

top surface of substrate 136. Moreover, the horizontal configuration of thyristor 240 includes a source, a drain, and a body located on a horizontal plane, wherein the horizontal plane is approximately parallel to the top surface of substrate 136.

IN THE CLAIMS:

Please cancel Claims 47-50 and 54-55 without prejudice.

Please amend the following Claims:

43. (Once Amended) A memory system comprising a plurality of T-RAM memory cells arranged in an array, wherein each of the plurality of T-RAM memory cells includes a first and a second horizontal device, said first and second horizontal device being approximately the same height, each of said first and second horizontal device having a planar top surface.

32
44. (Once Amended) The memory system as in Claim 43, wherein the first horizontal device is a thyristor and the second horizontal device is a transfer gate.

45. (Once Amended) The memory system as in Claim 44, wherein the transfer gate comprises a halo region of a single polarity.

46. (Once Amended) The memory system as in Claim 45, wherein the single polarity halo region of the transfer gate is fabricated in the same steps as a halo region of the thyristor

51. (Once Amended) The memory system as in Claim 43, wherein the first device is a p-MOS device and the second device is an n-MOS device.

52. (Once Amended) The memory system as in Claim 51, wherein the p-MOS device comprises an n-type halo region and the n-MOS device comprises a p-type halo region.

32
53. (Once Amended) The memory system as in Claim 52, wherein the n-type halo region of the p-MOS device is fabricated simultaneously with fabrication steps for fabrication of a halo region of the T-RAM cells and the p-type halo region of the n-MOS device is fabricated simultaneously with fabrication steps for fabrication of a second halo region of the T-RAM cells.

REMARKS

Claims 43-47, 54, and 55 were rejected under 35 USC §103(a) as allegedly being unpatentable over U.S. Patent No. 6,229,161 ("Nemati") in view of U.S. Patent No. 5,619,450 ("Takeguchi"), or over U.S. Patent Application 2002/0093030 ("Hsu").

The specification has been amended to more particularly describe Figure 14.

Claims 43-46 and 51-53 have been amended. No new subject matter has been added.

Claims 47-50 and 54-55 have been cancelled without prejudice. Applicants' submit that neither Nemati, Takeguchi, nor any combination thereof discloses, teaches, or suggests "a first and a second horizontal device, said first and second horizontal device being approximately the same height, each of said first and second horizontal device having a planar top surface" as is recited in amended Claim 43. One advantage of the planar first and second horizontal devices of amended Claim 43 is that the planar surface enables the application of subsequent layers to the cell without requiring additional manufacturing processes and costs, such as excessive Mask and/or Polish, as would be required for a cell